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IV. STATUS OF AMENDMENTS

No amendments to pending claims 1-5, 7-14 and 36-49 have been made since the office action mailed on March 18, 2008, which was the final rejection of the pending claims.

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V. SUMMARY OF CLAIMED SUBJECT MATTER

The present invention provides a durable printed composite material (page 2, lines 6-7; page 5, line 14), comprising:

a printable layer having a viewing surface and a printed surface (page 5, lines 14-19), wherein an image is printed on the printed surface (page 6, lines 19-21), said printable layer comprising a transparent or translucent material (page 5, lines 15-16), said printable layer including an ink-receiving layer (page 5, line 30);

a metallic layer having an inner surface and an outer surface (page 2, lines 25-27), said inner surface of said metallic layer providing a reflective sheen background (page 7, lines 7-10), said reflective sheen background being visible through at least a portion of said printable layer (page 2, lines 10-11; page 20, lines 12-13); and

an adhesive layer adhered between the inner surface and the printed surface such that at least a portion of said metallic layer is visible through the printable layer (page 2, lines 8-11)

wherein at least one of the layers includes an additive configured for one of light stabilization, liquid resistance, or vapor resistance (page 8, lines 15-18).

Additionally, the present invention provides a durable printed flexible composite material (page 2, lines 6-7; page 5, line 14; page 12, lines 1-2), comprising:

a printable layer having a viewing surface and a printed surface (page 5, lines 14-19), wherein an image is printed on the printed surface (page 6, lines 19-21), said printable layer comprising a transparent or translucent material (page 5, lines 15-16);

a metallic foil layer having an inner surface and an outer surface (page 2, lines 25-27; page 7, lines 20-21), said inner surface of said metallic foil layer providing a reflective sheen background (page 7, lines 7-10), said reflective sheen background being visible through at least a portion of said printable layer (page 2, lines 10-11; page 20, lines 12-13);

an adhesive layer adhered between the inner surface and the printed surface (page 2, lines 8-11; page 9, lines 7-8); and

a protective layer adhered to the outer surface of the metallic layer (page 7, lines 23-25);

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wherin the durable printed composite material has a thickness of from about 50 μm to about 250 μm (page 12, lines 3-5).

Further, the present invention provides a durable printed composite material (page 2, lines 6-7; page 5, line 14), comprising:

a printable layer having a viewing surface and a printed surface (page 5, lines 14-19), wherin an image is printed on the printed surface (page 2, lines 6-8; page 6, lines 19-21), said printable layer comprising a transparent or translucent material (page 5, lines 15-16);

a metallic layer having an inner surface and an outer surface (page 2, lines 25-27), said inner surface of said metallic layer providing a reflective sheen background (page 7, lines 7-10), said reflective sheen background being visible through at least a portion of said printable layer (page 2, lines 10-11; page 20, lines 12-13), and said metallic layer being image-free (page 7, lines 1-20; FIGs. 1-2); and

an adhesive layer adhered between the inner surface and the printed surface such that at least a portion of said metallic layer is visible through the printable layer (page 2, lines 8-11 and 19-21; page 9, lines 7-8).

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VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The issues presented for review are (1) whether claims 1-5, 7-13 and 49 are unpatentable under 35 U.S.C. 103(a) as being obvious over U.S. Patent No. 6,849,149 B2 to Otaki et al. (hereinafter "Otaki") in view of U.S. Patent No. 4,893,887 to Coates (hereinafter "Coates"); (2) whether claim 14 is unpatentable under 35 U.S.C. 103(a) as being obvious over Otaki in view of Coates; and (3) whether claims 36-48 are unpatentable under 35 U.S.C. 103(a) as being obvious over Otaki in view of Coates.

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VII. ARGUMENT

A. Appellants' invention

Appellants' claimed invention is outlined in independent claims 1, 14 and 36, which respectively read as follows:

"[a] durable printed composite material, comprising:

- a) a printable layer having a viewing surface and a printed surface, wherein an image is printed on the printed surface, said printable layer comprising a transparent or translucent material, said printable layer including an ink-receiving layer;
- b) a metallic layer having an inner surface and an outer surface, said inner surface of said metallic layer providing a reflective sheen background, said reflective sheen background being visible through at least a portion of said printable layer; and
- c) an adhesive layer adhered between the inner surface and the printed surface such that at least a portion of said metallic layer is visible through the printable layer wherein at least one of the layers includes an additive configured for one of light stabilization, liquid resistance, or vapor resistance" and

"[a] durable printed flexible composite material, comprising:

- a) a printable layer having a viewing surface and a printed surface, wherein an image is printed on the printed surface, said printable layer comprising a transparent or translucent material;
- b) a metallic foil layer having an inner surface and an outer surface, said inner surface of said metallic foil layer providing a reflective sheen background, said reflective sheen background being visible through at least a portion of said printable layer;
- c) an adhesive layer adhered between the inner surface and the printed surface; and
- d) a protective layer adhered to the outer surface of the metallic layer; wherein the durable printed composite material has a thickness of from about 50 μm to about 250 μm " and

"[a] durable printed composite material, comprising:

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- a) a printable layer having a viewing surface and a printed surface, wherein an image is printed on the printed surface, said printable layer comprising a transparent or translucent material;
- b) a metallic layer having an inner surface and an outer surface, said inner surface of said metallic layer providing a reflective sheen background, said reflective sheen background being visible through at least a portion of said printable layer, and said metallic layer being image-free; and
- c) an adhesive layer adhered between the inner surface and the printed surface such that at least a portion of said metallic layer is visible through the printable layer.

B. The Asserted References

1. The Otaki Reference

Otaki discloses a hologram laminate and a hologram label (Abstract). More specifically, Otaki discloses a hologram laminate comprising: "a substrate; a hologram layer provided on the substrate through a first pressure sensitive adhesive layer; and a transparent film provided on the hologram layer through a second pressure sensitive adhesive layer. (Abstract and col. 4, lines 55-60). The hologram of Otaki may be either a volume hologram or a relief hologram (col. 15, lines 6-13). Otaki does not teach a metallic foil. The protective film of Otaki may be colored and transparent (col. 35, lines 12-13).

2. The Coates Reference

Coates discloses a metallic hologram comprising an image formed and mounted on a substrate using an adhesive (Abstract and col. 1, lines 31-32). The metallic hologram of Coates comprises a thin layer of metal, which is always formed and mounted on a substrate (Abstract; col. 2, lines 8-10, 18-22, and 27-31). The metallic reflecting hologram of Coates is prepared by use of a die having a holographic image thereon (col. 1, lines 28-32). As such, Coates does not teach any embodiment wherein the metallic hologram or metallic layer is not imaged or embossed. *Id.* Coates further discloses that the metallic layer is necessarily very thin and is fabricated or deposited on a die or substrate which is then used for transferring purposes (col. 2, lines 5-11 and lines 42-49). Coates further discloses

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methods, such as vacuum metallization, sputtering and vacuum depositing the thin layer of metal directly on the die (col. 2, lines 6-7, 15-17, and 27-29).

C. Rejections Under 35 U.S.C. § 103(a)

1. Requirements for Prima Facie Obviousness

The Examiner has rejected claims 1-5, 7-13 and 49 under § 103(a) as being *prima facie* obvious over Otaki in view of Coates. In addition, the Examiner has rejected claim 14 and claims 36-48 as being *prima facie* obvious over Otaki in view of Coates. The Patent and Trademark Office (PTO), through the Examiner, has the burden of establishing a *prima facie* case of obviousness. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1998). To satisfy this burden, the PTO must meet the criteria set out in M.P.E.P. § 706.02(j):

[T]hree basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Moreover, the obviousness analysis must comply with the statutory scheme as explained by the Supreme Court in *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966), namely, consideration must be given to: (1) the scope and content of the prior art, (2) the differences between the prior art and the claimed invention, (3) the level of ordinary skill in the pertinent art, and (4) additional evidence, which may serve as indicia of non-obviousness.

An excellent summary of how the prior art must be considered to make a case of *prima facie* obviousness is contained in *In re Ehrreich et al.*, 220 U.S.P.Q. 504, 509-511 (CCPA 1979). There the court states that a reference must not be considered in a vacuum, but against the background of the other references of record. It is stated that the question of a § 103 case is what the reference(s) would "collectively suggest" to one of ordinary skill in

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the art. However, the court specifically cautioned that the Examiner must consider the entirety of the disclosure made by the reference and avoid combining them indiscriminately.

In finding that the "subject matter as a whole" would not have been obvious in *Ehrreich* the court concluded:

"Thus, we are directed to no combination of prior art references which would have rendered the claimed subject matter as a whole obvious to one of ordinary skill in the art at the time the invention was made. The PTO has not shown the existence of all the claimed limitations in the prior art or any suggestion leading to their combination in the manner claimed by applicants." (underlining added)

It has been widely recognized that virtually every invention is a combination of elements and that most, if not all, of these will be found somewhere in an examination of the prior art. This reasoning lead the court, in *Connell v. Sears, Roebuck & Co.*, 220 U.S.P.Q. 193, 199 (Fed. Cir. 1983) to state:

"...it is common to find elements or features somewhere in the prior art. Moreover, most if not all elements perform their ordained and expected function. The test is whether the claimed invention as a whole, in light of all the teachings of the references in their entireties, would have been obvious to one of ordinary skill in the art at the time the invention was made." (underlining added)

With the above background in mind, Appellants contend that the Examiner has not met this burden with respect to any of the claims on appeal. Particularly, Appellants submit that the PTO has failed to show that each and every element of the claimed invention is contained in a single reference or a combination of references. Appellants now turn to a discussion of the specific rejection at issue, and the references on which they are based.

2. The Rejection of Claims 1-5, 7-13 and 49 over Otaki in view of Coates

Of this particular set of claims, Claim 1 is independent and the remaining claims all depend from and are narrower in scope than claim 1. Accordingly, Applicant directs the following remarks to Claim 1 and any and all claims depending therefrom.

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Independent Claim 1 requires a durable printed composite material as set forth above, wherein at least one of the layers includes an additive configured for one of light stabilization, liquid resistance, or vapor resistance. The Examiner makes two distinct rejections concerning this language. Each rejection is discussed individually below.

First, in the Advisory Action dated June 19, 2008, the Examiner asserts that "the limitation 'configured for one of light stabilization, liquid resistance, or vapor resistance' is drawn to intended use, and it has been held that a recitation with respect to the manner in which a claimed article is intended to be employed does not differentiate the claimed article from a prior article satisfying the claimed structural limitations." In addition, the Examiner asserts that "the claimed invention does not expressly recite a light stabilizer additive, a liquid resistance additive or vapor resistant additive."

Applicant disagrees with the Examiner on this issue. A claimed invention should be read in light of the specification. The invention of claim 1 recites "... an additive configured for one of light stabilization, liquid resistance or vapor resistance." Applicant's specification defines what is meant by "an additive configured for one of light stabilization, liquid resistance or vapor resistance," and the specification even lists specific light stabilization additives, liquid resistance additives and vapor resistance additives that fit within these categories. Accordingly, the Examiner's argument that the claimed invention does not expressly recite a light stabilizer additive, a liquid resistance additive or vapor resistant additive cannot stand.

Second, the Examiner alleges that Otaki discloses a colored transparent film 203 (col. 35, line 12), and that the colorant used to make this layer colored is equivalent to the claimed additives configured for light stabilization, liquid resistance and/or vapor resistance. See March 18, 2008 Office Action, page 2, paragraph 4. In response, Applicant has argued and maintains the position that the colorant of Otaki is not equivalent to the claimed additives. There is nothing in Otaki to teach or suggest that the colorant is also an additive configured for light stabilization, liquid resistance or vapor resistance. Despite there being *nothing* in Otaki that teaches or suggests that the colorant is also an additive consistent with those claimed in Claim 1, the Examiner argues the colorant of Otaki "*inherently* absorbs light having some wavelength, and by absorbing the light with

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some wavelength the product is protected from long term degradation from exposure to light." See March 18, 2008 Office Action, page 4, paragraph 7 (emphasis added).

Applicant disagrees with the Examiner's analysis and ultimate conclusion. The Examiner has based the rejection on a non-disclosed, *inherent* characteristic of the colorant in Otaki. Pursuant to MPEP §2112(IV), the Examiner must provide rationale or evidence tending to show inherency. In addition, the evidence "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999).

The Examiner has not provided evidence in this case to show that the colorant of Otaki inherently "stabilizes" a composition when exposed to light, "resists liquid" or "resists vapor." Even if a colorant inherently absorbs light, it does not follow that the absorption of light inherently stabilizes a composition from light exposure, resists liquid or resists vapor. The Examiner has stated that "the colorant of Otaki inherently absorbs light" and that by absorbing light the "product is protected from long term degradation from exposure to light." See June 19, 2008 Advisory Action. The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish inherency of that result or characteristic. MPEP §2112(IV) citing *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993). Thus, even if the colorant of Otaki might stabilize, resist liquid or resist vapor, it is nevertheless insufficient to support a rejection under 103(a) since these characteristics are not necessarily present in colorants. See *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999). It should be emphasized that there are thousands upon thousands of colorants, and each colorant is chemically different. Since the Examiner has based the rejection of Claim 1 on inherency without providing evidence tending to show inherency of the missing descriptive matter, this rejection cannot stand and should be withdrawn.

As a further matter, the colorant of Otaki is not equivalent to the claimed additives configured for one of light stabilization, liquid resistance or vapor resistance. There is nothing in Otaki to teach or suggest that the colorant is also an additive configured for any of the claimed functions. Moreover, the present application distinguishes between

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different types of additives. For example, on page 8 beginning on line 15, the specification lists various types of additives including colorants, which are separate and apart from light stabilizers, liquid resistance additives and vapor resistance additives. The fact that these additives are listed individually indicates that they are separate and distinct additives, and that one of the additives does not necessarily possess the same characteristics as the other additives. In fact, it is clear from the Applicant's specification that colorants *per se* would not qualify as this claim element, further distinguishing the claimed invention over the prior art. In other words, the Applicants have defined light stabilizers, liquid resistance additives and vapor resistance additives separately than their discussion of colorants. The Applicants' contemplated the use of colorants as additives separate from light stabilizers. Thus, a plain reading of the specification undermines the very argument made by the Examiner that a colorant should be counted as a light stabilizer.

More specifically, light stabilization additives are not defined in the present specification as colorants, but rather are described as materials such as hindered amines, UV absorbers, etc. Liquid resistance additives decrease the wettability of the surface to specific liquids, and vapor resistance additives include acrylonitrile copolymers and vinylidene chloride copolymers. None of these elements are colorants. Moreover, a colorant does not inherently stabilize against light, resist liquid or resist vapor *per se*. Accordingly, Otaki does not teach or suggest an additive configured for one of light stabilization, liquid resistance, or vapor resistance, as defined by the Applicant.

Coates does not make up for this deficiency. In fact, Coates does not teach or suggest adding a colorant to the metal hologram, as is acknowledged by the Examiner on Page 3, paragraph 6 in the August 31, 2007 Office Action. More importantly, Coates does not teach or suggest adding any additive to the layers of the hologram, let alone an additive configured for one of light stabilization, liquid resistance, or vapor resistance. Accordingly, neither Otaki nor Coates alone or in combination teach or suggest the claimed limitation of an additive configured for light stabilization, liquid resistance, and/or vapor resistance.